The annotations give references to previous Ecuadorian records for the species, and also the sex, date of collection and locality of the specimens, the color of the bill, etc., in life, with remarks on variations of plumage. This report on Dr. Festa's work thus forms a most important contribution to South American ornithology. — J. A. A.

Bangs on Birds from the Sierra Nevada de Santa Marta, Colombia.[1] — This is Mr. Bangs's fourth paper on the birds of this region, and relates to collections made by Mr. Wilmot W. Brown, Jr., from January to April, 1899, at altitudes varying from 3,000 to 15,000 feet. The list includes 68 species, of which 13 are described as new, namely: (1) *Pharomachrus festatus*, (2) *Metallura districta*, (3) *Ochthodiæta pernix*, (4) *Hapalocercus paulus*, (5) *Myiopatis montensis*, (6) *Pipreola aureipectus decora*, (7) *Sclerurus albigularis propinquus*, (8) *Conopophaga browni*, (9) *Scytalopus latebricola*, (10) *Haplospiza nivaria*, (11) *Cinclus rivularis*, (12) *Troglodytes monticola*, (13) *Merula albiventris fusa*. The list relates for the most part to species not previously taken by Mr. Brown, but additional specimens of some of the rarer forms are recorded. Thus an additional specimen of Mr. Bangs's *Leucuria phalerata* (figured in 'The Auk,' XVI, 1899, plate ii), previously known to Mr. Bangs only from the type, is reported. This is doubtless not a rare species at favorable localities, the American Museum of Natural History having received five specimens in a collection made by Mr. H. H. Smith in the same general region. These specimens show that the tail is not always pure white, being considerably shaded with dusky in immature birds. — J. A. A.

Pearson's Preliminary List of Birds of Chapel Hill, N. C.[2] — As the title implies, this List is put forth as only an imperfect enumeration of the birds occurring at Chapel Hill, North Carolina. The period of observation is comparatively brief, and the species listed number only 132, but include only such as have been observed and positively identified. The annotations relate mainly to the seasons and manner of occurrence of the species noted. It is therefore a good list as far as it goes, but it is unfortunately marred by careless proofreading. — J. A. A.

Kellogg's List of Biting Lice (Mallophaga) taken from North Ameri-

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[1] On Some New or Rare Birds from the Sierra Nevada de Santa Marta, Colombia. By Outram Bangs. Proc. Biol. Soc. Washington, XIII, 1899, pp. 91–108. Nov. 11, 1899.

[2] Preliminary List of the Birds of Chapel Hill, N. C., with brief notes on some of the species. By T. Gilbert Pearson. Journ. of the Elisha Mitchell Sci. Soc., Vol. XVI, part 1, 1899, pp. 33–51.

can Birds and Mammals.[1] — A list of the known North American species of the order Mallophaga is not only here given, with references to the place of original description, and the name of the host, but there is also a separate list of the hosts, with the name of the species of parasite infesting each host species. The North American species thus far recorded number 282 species, representing 18 out of the 21 recognized genera of the order. Of these 264 species infest birds, and 18 are known only from mammals. Mallophagous parasites have been recorded from 257 species of North American birds, belonging to 167 genera. As 107 species of North American Mallophaga were described from European hosts, the question of their distribution is one of special interest,[2] as in many cases the same parasite is found on hosts that are not only not congeneric, but which do not occur on the same continent. Often the same species occurs on several different hosts, while not unfrequently three or more species of Mallophaga occur on the same host species, sometimes as many as eight or ten, representing as many as five genera. In some instances the same parasite has been recorded from birds differing greatly in habits, and belonging even to different orders. As the subject is of interest to both ornithologists and entomologists, it seems desirable to quote in this connection from a recent letter from Prof. Kellogg, to the present writer, as follows: "As I can only get specimens of Mallophaga from bird collectors — that is, I have not yet come to the point where I can shoot birds simply for the sake of collecting their parasites — you see what assistance the readers of 'The Auk' can be to me." He also states that he has received in this way "some specimens, and has been promised others."

In discussing elsewhere (Psyche, *l. c.*) this problem in distribution, Prof. Kellogg has thus formulated his conclusions : ".... On this fact I base my belief that the occurrence of a parasite species common to several hosts under circumstances which do not admit of the migration of the parasites from bird to bird is due to the persistence of the parasite species unchanged from the common ancestor of the two or more now distinct but closely allied bird species. With the spreading of the ancestral species, geographical races have arisen within the limits of the species which have with time and with isolation, caused by newly appearing geographical barriers due to geologic or climatic changes, come to be distinct species — species often distinguished only by superficial differences in color and markings of plumage, etc. The parasites have

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[1] A List of the Biting Lice (Mallophaga) taken from Birds and Mammals of North America. By Vernon L. Kellogg, M. S., Professor of Entomology, Leland Stanford Junior University. Proc. U. S. Nat. Mus. Vol. XXII., No. 1183, 1899, pp. 39–100.

[2] See Kellogg (V. L.), 'A Problem in Distribution,' Psyche, VII, Aug., 1898, pp. 243–247.

remained practically unaffected by the conditions which have produced the differences among the birds; the temperature of the host's body, the feathers as food, all of the environment of the parasite is practically unchanged. The parasitic species thus remains unchanged, while the ancestral *Larus* or *Anas* species becomes differentiated into a dozen or score of specific forms, all with a common parasite. If this proposed solution of the problem may be accepted, it introduces a factor into problems of distribution, where parasites are concerned, which I do not recall having seen presented before."—J. A. A.

Thompson on the Cranial Osteology of the Parrots.[1]—"To discover anatomical characters such as might yield or help to yield a natural classification of the Parrots has been the desire of many ornithologists, but the search has availed little."

Professor Thompson's line of research is a detailed study of the quadrate, the auditory region, and particularly of the orbital ring as regards its completeness or incompleteness, and the cranial bones taking part in its formation. These are the lachrymal, or prefrontal as Prof. Thompson prefers to call it, the postorbital or postfrontal, and the squamosal, and the changes are so rung that when a suborbital ring is present it may be formed by the prefrontal and postfrontal, the prefrontal and squamosal, or, as in the Cockatoos, all three may unite, thus forming a supratemporal fossa. The conditions prevailing in many members of the various families and subfamilies admitted by Mivart are discussed in considerable detail, but while additional emphasis is given to the family rights of *Stringops* and *Nestor*, Prof. Thompson has given us no summary of his own conclusions, leaving us to make our own applications of the points he has given. The paper is most valuable, embodying as it does the results of long study, but it again emphasizes the familiar fact that among birds minor structural variations are so great that it is practically impossible to find any one character by means of which even small groups may be separated.—F. A. L.

Lange's 'Our Native Birds, How to Protect them and Attract them to Our Homes.'[2]—As the title explains, this is a popular bird book on rather new lines, it being devoted to an exposition of how to protect birds and to promote their increase in the vicinity of our homes. The first section of the work relates to the decrease in both song and game birds and

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[1] On Characteristic Points in the Cranial Osteology of the Parrots. By D'Arcy W. Thompson, C. B., F. Z. S. Proc. Zool. Soc. London, Jan., 1899.

[2] Our Native Birds | How to Protect them and Attract | them to our Homes | By | D. Lange | author of "Handbook of Nature Study" | Instructor in Nature Study in the Public Schools | of St. Paul, Minnesota | With Illustrations | New York | The Macmillan Company | London: Macmillan & Co., Ltd. | 1899 | All rights reserved.—12mo, pp. xii + 162. $1.00.